

order 2163



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBW6405G02331-3G-05
Job Sheet 171450



Part No: RBW6405G02331-3G-05 Job Qty: 2 ea

Part Name: Puller



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/1/18

Job Tracking No:

Due Date: 2/9/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBW6405G02331-3G-05 REV:2 IPP REV A 18.01.19 NEW ISSUE RQ VERIFIED BY DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea		2/8/18	0.00	0.00	Start Up Machining-4		JK 18-2-24
120	Mori Seiki	2 pcs		2/9/18	0.00	0.40	MORI SL2500Y		JK
130	QC	2 pcs		2/9/18	0.00	0.00	QC2 Machining-5		JK
160	QC	2 pcs		2/9/18	0.00	0.00	QC8 Machining-5		
220	Outsource	2 pcs		2/9/18	0.00	0.00	Outsource13		AT 18/03/19
230	Packaging	2 pcs		2/9/18	0.00	0.00	Packaging2		AT DAS 18/03/19
240	QC	2 pcs		2/9/18	0.00	0.00	QC6		38
250	Packaging	2 pcs		2/9/18	0.00	0.00	Packaging3-2		9-88
260	QC21-SA	2 Ea		2/9/18	0.00	0.00	QC21		GA097

Part Op 120 - 1-Machine as per folio FB800 FOLIO REV: DWG REV: 21 MAR 2 1 2018

Descriptions: And / or P/N number as required Using Marktronic engraver as per DWG. 9-89

220 - -Issue P/O to Groupe Altech: P/O 039186 -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required

230 - Receive

250 - Identify and Stock

MAR 05 2018 2003

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R3.500	MT-4140QT-R3.500	.2400 ft (.12 ea)	90-Start up	
	Dia.		Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-4140QT-R3.500	0	0	0

SC40570

26

4.75



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S045075



Part: RBW6405G02331-3G-05

Job No: 171450

Serial No/Batch: S045075

Revision:

Inspector:

ations

not be found.

Plex 2/1/18 11:11 AM Dart.lajeunesse.marie

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

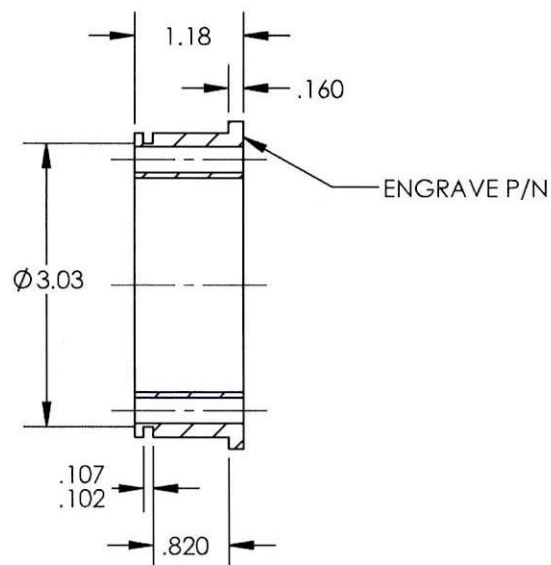
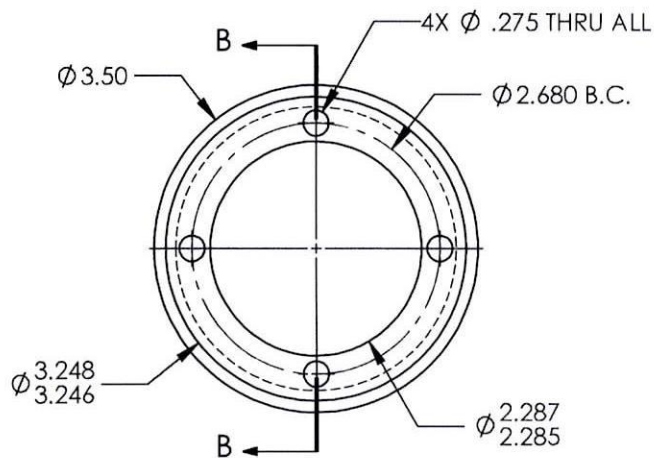
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0032	-05 DELETED DIM Ø3.248. CH'D ENGRAVE NOTE WAS ENGRAVE T/N "RBW6405G02331-3G-5". IS ENGRAVE P/N. CH'D MATERIAL WAS 4140 IS 4140/4142. CH'D FINISH WAS CAD PLATE YELLOW IS ZINC PLATE SPEC. ASTM B633 TYPE I SC2. ADDED HEAT TREAT RC 28-34.	1/26/2017	RJC	SM



SECTION B-B

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171418 MJS

JAN 31 2016

(-05)
PULLER

DART AEROSPACE	
TITLE T/R UPPER CONICAL RING PULLER	
DWG NO. RBW6405G02331-3G-05	REV 2
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT RC 28-34	.XXX ± .005 FRACTIONS ± 1/8
FINISH ZINC PLATE	.XX ± .01 ANGLES ± 5°
SPEC ASTM B633 TYPE I SC 2	.X ± .1 SURFACES = 125/✓
DRAWN BY: CLOUGH	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: MACKOVJAK	AW139
SCALE 1:2	DATE 3/25/2010
SHEET 4 OF 9	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION		AGAINST DEPARTMENT/PROCESS							
	Rework	☐	Skid-tube	☐	Cross tube	☐	Water Jet	☐	Engineering	☐
	Scrap	☐	Machining	☐	Small Fab	☐	Prod. Eng. Coord.	☐	Quality	☐
	Use-as-is	☐	Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
	Suspected Unapproved	☐	Large Fab	☐	Composite	☐	Supplier	☐		

Date :	Step #:	QTY Effective :	MRB (QSI042) Approval
--------	---------	-----------------	-----------------------

Description Work Order Deviation	Disposition	Completed By
WORK ORDER NON-CONFORMANCE / UPDATE		Lead hand / Supervisor Approval Verification
		QC / QA Coordinator Approval

Root Cause		FAULT CATEGORY							
Environment	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	OTHER : _____							
Misidentified	☐								



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO039186

Items										
Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
6	170063	RB412WA-CR&O-3-62-2A-1-2	required Blade Bolt Segments Removal / Installation Workaid -Issue P/O to Groupe Altech: P/O _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	3/16/18	4 pcs	0 pcs	4 pcs	\$6.00/pcs	\$24.00
7	171450	RBW6405G02331-3G-05	Puller -Issue P/O to Groupe Altech: P/O _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	3/16/18	2 pcs	0 pcs	2 pcs	\$6.00/pcs	\$12.00
8	171449	RBW6405G02331-3G-07	Pin -Issue P/O to Groupe Altech: P/O _____ -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	3/16/18	9 pcs	0 pcs	9 pcs	\$6.00/pcs	\$54.00
9	172466	RBE350A94-3700-C-01	Tube -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	3/16/18	9 pcs	0 pcs	9 pcs	\$1.80/pcs	\$16.20
10	171042	RBST1007-13	Secondary Seat -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	3/16/18	4 pcs	0 pcs	4 pcs	\$0.95/pcs	\$3.80
11	171709	RBT18603-1	Handle -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is required	Firmed	3/16/18	5 pcs	0 pcs	5 pcs	\$2.25/pcs	\$11.25
12	171712	RBT18603-7	Foot -Issue P/O to Groupe Altech; PO _____ -Black oxide finish, MIL-C-13924C Class 1 -Certificate of Conformity is	Firmed	3/16/18	4 pcs	0 pcs	4 pcs	\$0.89/pcs	\$3.56

DAB
38
9-89



Certificat de Conformité / Certificate of Compliance



2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

007318- 1

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
16-Mar-2018		Celine Schreindorfer		P0039186				
#Ligne Line#	No. de Série / # Pièce Part Number / Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	A venir/ Back Order
2	RBE2-10-1-01 Rev.	RBE2-10-1-01 01 - BLACK OXIDE ON SST MIL-C-13964, CLASS 1; MIL-C-16173 GRADE 4	BLACK-OXIDE CH	6	6	0	0	0
3	RBE350A93-3303-02-1 Rev.	RBE350A93-3303-02-1 01 - BLACK OXIDE FINISH M MIL-C-13924C, CLASS 1	BLACK-OXIDE CH	6	6	0	0	0
4	RBE350A93-3303-02-3 Rev.	RBE350A93-3303-02-3 01 - BLACK OXIDE FINISH ON SST MIL-C-13942C, CLASS 1	BLACK-OXIDE CH	6	6	0	0	0
5	RBE350A93-3317-20 Rev.	RBE350A93-3317-20 01 - BLACK OXIDE FINISH ON SST MIL-C-13924C, CLASS 1	BLACK-OXIDE CH	6	6	0	0	0
6	RB412WA-CR&O-3-62-2A-1-2 Rev.	RB412WA-CR&O-3-62-2A-1-2 ASTM B633 TYPE 1 SC2 01 - ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT]	ZINC CH	✓ 4	4	0	0	0
7	RBW6405G02331-3G-05 Rev.	RBW6405G02331-3G-05 ON SST MIL-C-13924C, CLASS 1 01 - ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT]	ZINC CH	✓ 2	2	0	0	0
8	RBW6405G02331-3G-07 Rev.	RBW6405G02331-3G-07 ASTM B633 TYPE 1 SC2 01 - ZINC-CLEAR TRI [ZINC CLEAR TRIVALENT]	ZINC CH	✓ 9	9	0	0	0
10	RBST1007-13 Rev.	RBST1007-13 01 - BLACK OXIDE ON SST MIL-C-13924C CLASS 1	BLACK-OXIDE CH	4	4	0	0	0
11	RBT18603-01 Rev.	RBT18603-01 01 - BLACK OXIDE ON SST MIL-DTL-13924C CLASS 1	BLACK-OXIDE CH	5	5	0	0	0
12	RBT18603-07 Rev.	RBT18603-07 01 - BLACK OXIDE ON SST MIL-DTL-13924C CLASS 1	BLACK-OXIDE CH	4	4	0	0	0
13	RBST1007-11 Rev.	RBST1007-11 01 - BLACK OXIDE ON SST MIL-C-13924C CLASS 1	BLACK-OXIDE CH	4	4	0	0	0

DAS
38
9-89

9. RBE350A94-3700-C-01

Certificat de Conformité / Certificate of Compliance



Bon de Livraison / Packing Slip

007318- 1

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
BUYER:

Notes Additionnelles / Additional Notes

Reçu par
Received By

Page 2 of 2